



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/579,688

05/18/2006

Gerald P. Downey

2504.3006.004

9595

23399

7590

05/12/2009

REISING, ETHINGTON, BARNES, KISSELLE, P.C.

P O BOX 4390

TROY, MI 48099-4390

EXAMINER

REESE, DAVID C

ART UNIT

PAPER NUMBER

3677

MAIL DATE

DELIVERY MODE

05/12/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,688	Applicant(s) DOWNEY, GERALD P.	
	Examiner David C. Reese	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13-22, 26-35, 38 and 39 is/are rejected.
- 7) ☒ Claim(s) 11, 12, 24, 25, 36 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

- Claims 1-39 are pending.

Claim Rejections - 35 USC § 102

[1] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[2] Claims 1-9, 13-22, 26-34, and 38-39 are rejected under 35 U.S.C. 102(b) as anticipated by Brilmyer, US-5,580,201, because the invention was patented or described in a printed publication in this or a foreign country, or in public use or on sale in this country more than one (1) year prior to the application for patent in the United States.

As for Claim 1, Brilmyer discloses of a fastener assembly (see figures 1-4) adapted for providing adjustment between at least two members, said fastener assembly including:

a bolt (11, 41) having a head, a shank axially extending from said head, and a circumferentially uninterrupted threaded portion (20, 52) axially extending from said shank;

a first cam washer (10, 46) fixed against rotation to said shank of said bolt adjacent said head of said bolt; and

Art Unit: 3677

a second cam washer (22, 54) fixed against rotation to said shank of said bolt adjacent said threaded portion (20, 52) of said bolt.

Re: Claim 2, further including a nut (26) adapted for attachment to said threaded portion of said bolt.

Re: Claim 3, wherein said nut (26) includes a threaded portion (30) and a skirt portion (31) extending from said threaded portion, said threaded portion adapted for threading to said threaded portion (20, 52) of said bolt after said second cam washer (22, 54) is at least partially fixed to said shank, thereby preventing the possibility of said second cam washer becoming misassembled to said bolt between said shank and said nut.

Re: Claim 4, wherein said skirt portion (31) of said nut (26) has a length equal to the length of said threaded portion of said bolt minus the thickness of said second cam washer, plus two times the thread pitch of said threaded portion of said bolt.

Re: Claim 5, wherein said threaded portion (20, 52) of said bolt is circumferentially uninterrupted over substantially the entire length of said threaded portion.

Re: Claim 6, wherein said threaded portion (20, 52) does not include any axially-extending circumferential interruptions.

Re: Claim 7, wherein said shank of said bolt includes at least one key feature (18) and said second cam washer (22) includes an aperture adapted for freely passing over said threaded portion of said bolt and further includes at least one key feature corresponding to said at least one key feature of said bolt, thereby fixing said second cam washer to said shank of said bolt against rotation with respect thereto.

Art Unit: 3677

Re: Claim 8, wherein said at least one key feature (18) of said bolt is integrally formed into said shank of said bolt during production of said bolt.

Re: Claim 9, wherein said at least one key feature (18) of said bolt includes at least one flat and said aperture of said second cam washer (22, 54) is defined by at least one corresponding flat.

Re: Claim 13, wherein said at least one key feature (18) of said bolt extends axially from said threaded portion for a length adapted to accommodate a variety of widths of said at least two members.

Re: Claim 14, wherein said threaded portion (20, 52) of said bolt is diametrically smaller than said shank of said bolt to facilitate said second cam washer to pass freely thereover and engage said at least one key feature of said shank.

Re: Claim 15, wherein said first cam washer (10, 46) is splined (via 48) to said bolt.

As for claim 16, Brilmyer discloses of a bolt assembly adapted for providing adjustment between at least two members of an automotive suspension linkage, said cam bolt assembly including:

a bolt (11, 41) having a head, an enlarged diameter portion axially adjacent said head, a shank extending axially from said enlarged diameter portion, and a substantially uninterrupted threaded portion (20, 52) extending axially from said shank, said shank having at least one key feature (18);

a first cam washer (10, 46) mounted to said enlarged diameter portion of said bolt;

a second cam washer (22, 52) mounted to said shank of said bolt in engagement with said at least one key feature (18), said second cam washer having an aperture therethrough that

Art Unit: 3677

substantially corresponds in shape to said at least one key feature of said shank; and a nut (26) adapted for attachment to said threaded portion of said bolt, said nut including a threaded portion (30) and a skirt portion (31) extending from said threaded portion, said threaded portion being adapted for threading to said threaded portion of said bolt after said second cam washer is at least partially engaged with said at least one key feature, thereby preventing the possibility of said second cam washer becoming misassembled to said bolt between said shank and said nut.

Re: Claim 17, wherein said at least one key feature (18) on said bolt and said aperture in said second cam washer (22, 54) are such that said second cam washer can be assembled to said bolt at only one angular orientation of said second cam washer to said bolt.

Re: Claim 18, wherein said skirt portion (31) of said nut has a length equal to the length of said threaded portion of said bolt minus the thickness of said second cam washer, plus two times the thread pitch of said threaded portion of said bolt.

Re: Claim 19, wherein said threaded portion (20, 52) of said bolt is circumferentially uninterrupted over substantially the entire length of said threaded portion.

Re: Claim 20, wherein said threaded portion (20, 52) does not include any axially-extending circumferential interruptions such as grooves or flats.

Re: Claim 21, wherein said at least one key feature (18) of said bolt is integrally formed into said shank of said bolt during cold forming of said bolt.

Re: Claim 22, wherein said at least one key feature of said bolt includes at least one flat (18) and said aperture of said second cam washer (22, 54) is defined by at least one corresponding flat.

Art Unit: 3677

Re: Claim 26, wherein said at least one key feature (18) of said bolt extends axially from said threaded portion for a length adapted to accommodate a variety of widths of said at least two members.

Re: Claim 27, wherein said threaded portion (20, 52) of said bolt is diametrically smaller than said shank of said bolt to facilitate said second cam washer to pass freely thereover and engage said at least one key feature of said shank.

As for claim 28, Brilmyer discloses of an automotive suspension linkage including:

a first member;

a second member linked to said first member; and

a cam bolt assembly linking said first and second members, said cam bolt assembly including:

a bolt (11, 41) having a head, an enlarged diameter portion axially adjacent said head, a shank extending axially from said enlarged diameter portion, and a substantially uninterrupted threaded portion extending axially from said shank, said shank having at least one key feature (18);

a first cam washer (10, 46) mounted to said enlarged diameter portion of said bolt;

a second cam washer (22, 54) mounted to said shank of said bolt in engagement with said at least one key feature (18), said second cam washer having an aperture therethrough that substantially corresponds in shape to said at least one key feature of said shank; and a nut adapted for attachment to said threaded portion of said bolt.

Re: Claim 29, wherein said nut (26) includes a threaded portion (30) and a skirt portion (31) extending from said threaded portion, said threaded portion adapted for threading to said

Art Unit: 3677

threaded portion of said bolt after said second cam washer is at least partially engaged with said at least one key feature, thereby preventing the possibility of said second cam washer becoming misassembled to said bolt between said shank and said nut.

Re: Claim 30, wherein said skirt portion (31) of said nut has a length equal to the length of said threaded portion of said bolt minus the thickness of said second cam washer, plus two times the thread pitch of said threaded portion of said bolt.

Re: Claim 31, wherein said threaded portion (20, 52) of said bolt is circumferentially uninterrupted over substantially the entire length of said threaded portion.

Re: Claim 32, wherein said threaded portion (20, 52) does not include any axially-extending circumferential interruptions such as grooves, or flats.

Re: Claim 33, wherein said at least one key feature (18) of said bolt is integrally formed into said shank of said bolt during cold forming of said bolt.

Re: Claim 34, wherein said at least one key feature (18) of said bolt includes at least one flat and said aperture of said second cam washer is defined by at least one corresponding flat.

Re: Claim 38, wherein said at least one key feature (18) of said bolt extends axially from said threaded portion (20, 52) for a length adapted to accommodate a variety of widths of said first and second members.

Re: Claim 39, wherein said threaded portion (20, 52) of said bolt is diametrically smaller than said shank of said bolt to facilitate said second cam washer to pass freely thereover and engage said at least one key feature of said shank.

Art Unit: 3677

[3] Claims 1-10, 14-17, 21-23, 27-29, 33-35, and 39 are rejected under 35 U.S.C. 102(e(1)) as anticipated by Genick, II, US-7,370,868.

As for Claim 1, Genick discloses of a fastener assembly (see figures 4) adapted for providing adjustment between at least two members, said fastener assembly including:

a bolt (52) having a head, a shank axially extending from said head, and a circumferentially uninterrupted threaded portion (50) axially extending from said shank;

a first cam washer (32) fixed against rotation to said shank of said bolt adjacent said head of said bolt; and

a second cam washer (32) fixed against rotation to said shank of said bolt adjacent said threaded portion (50) of said bolt.

Re: Claim 2, further including a nut (18) adapted for attachment to said threaded portion of said bolt.

Re: Claim 7, wherein said shank of said bolt includes at least one key feature (56) and said second cam washer (32) includes an aperture adapted for freely passing over said threaded portion of said bolt and further includes at least one key feature corresponding to said at least one key feature of said bolt, thereby fixing said second cam washer to said shank of said bolt against rotation with respect thereto.

Re: Claim 8, wherein said at least one key feature (56) of said bolt is integrally formed into said shank of said bolt during production of said bolt.

Re: Claim 9, wherein said at least one key feature (56) of said bolt includes at least one fiat and said aperture of said second cam washer (32) is defined by at least one corresponding fiat.

Art Unit: 3677

Re: Claim 10, wherein said at least one flat includes at least two adjacent flats (see 59 in fig. 7).

Re: Claim 14, wherein said threaded portion (50) of said bolt is diametrically smaller than said shank of said bolt to facilitate said second cam washer to pass freely thereover and engage said at least one key feature of said shank.

Re: Claim 15, wherein said first cam washer (32) is splined (via 26) to said bolt.

As for claim 16, Genick discloses of a bolt assembly adapted for providing adjustment between at least two members of an automotive suspension linkage, said cam bolt assembly including:

a bolt (52) having a head, an enlarged diameter portion axially adjacent said head, a shank extending axially from said enlarged diameter portion, and a substantially uninterrupted threaded portion (50) extending axially from said shank, said shank having at least one key feature (18);

a first cam washer (32) mounted to said enlarged diameter portion of said bolt;

a second cam washer (32) mounted to said shank of said bolt in engagement with said at least one key feature (56), said second cam washer having an aperture therethrough that substantially corresponds in shape to said at least one key feature of said shank; and a nut (18) adapted for attachment to said threaded portion of said bolt, said nut including a threaded portion and a skirt portion extending from said threaded portion, said threaded portion being adapted for threading to said threaded portion of said bolt after said second cam washer is at least partially engaged with said at least one key feature, thereby preventing the possibility of said second cam washer becoming misassembled to said bolt between said shank and said nut.

Art Unit: 3677

Re: Claim 17, wherein said at least one key feature (56) on said bolt and said aperture in said second cam washer (32) are such that said second cam washer can be assembled to said bolt at only one angular orientation of said second cam washer to said bolt.

Re: Claim 21, wherein said at least one key feature (56) of said bolt is integrally formed into said shank of said bolt during cold forming of said bolt.

Re: Claim 22, wherein said at least one key feature of said bolt includes at least one flat (56) and said aperture of said second cam washer (32) is defined by at least one corresponding flat.

Re: Claim 23, wherein said at least one flat includes at least two adjacent flats (59, see fig. 7).

Re: Claim 27, wherein said threaded portion (50) of said bolt is diametrically smaller than said shank of said bolt to facilitate said second cam washer to pass freely thereover and engage said at least one key feature of said shank.

As for claim 28, Genick discloses of an automotive suspension linkage including:

a first member;

a second member linked to said first member; and

a cam bolt assembly linking said first and second members, said cam bolt assembly including:

a bolt (52) having a head, an enlarged diameter portion axially adjacent said head, a shank extending axially from said enlarged diameter portion, and a substantially uninterrupted threaded portion extending axially from said shank, said shank having at least one key feature (18);

Art Unit: 3677

a first cam washer (32) mounted to said enlarged diameter portion of said bolt;

a second cam washer (32) mounted to said shank of said bolt in engagement with said at least one key feature (56), said second cam washer having an aperture therethrough that substantially corresponds in shape to said at least one key feature of said shank; and a nut adapted for attachment to said threaded portion of said bolt.

Re: Claim 33, wherein said at least one key feature (56) of said bolt is integrally formed into said shank of said bolt during cold forming of said bolt.

Re: Claim 34, wherein said at least one key feature (56) of said bolt includes at least one fiat and said aperture of said second cam washer is defined by at least one corresponding fiat.

Re: Claim 35 wherein said at least one fiat includes at least two adjacent flats (see 59 in fig. 7).

Re: Claim 39, wherein said threaded portion (50) of said bolt is diametrically smaller than said shank of said bolt to facilitate said second cam washer to pass freely thereover and engage said at least one key feature of said shank.

Allowable Subject Matter

[4] Claims 11-12, 24-25, and 36-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 3677

Conclusion

[5] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited further to show the state of the art with respect to this particular type of fastener: please see submitted notice of reference cited.

[6] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (571) 272-7082. The examiner can normally be reached on 7:30 am-6:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached at (571) 272-6987. The fax number for the organization where this application or proceeding is assigned is the following: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Reese

/D. C. R./

Examiner, Art Unit 3677

/Victor Batson/

Supervisory Patent Examiner, Art Unit 3677